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Chapter 7: Principles of Professional Development

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This chapter summarizes the 4-year-long PEP professional development (PD) initiative in terms of current perspectives on teacher learning and PD, shares lessons learned about the design and delivery of high-quality PD, and presents some principles to guide the development of future PD efforts. The first section reviews the definition and theoretical underpinnings of PD that guided the work. The second section presents lessons learned for the design and delivery of quality PD experiences for and with physical education teachers. The third section presents a framework for thinking about and designing future PD programming and in the final section directions for future research in PD with physical education teachers are noted.

Definition and Theoretical Underpinnings of this Project

The definition of PD used in this project was influenced by the English educator Christopher Day (1999) and provided a useful heuristic for our work with a cohort of physical educators. Similar to Day (1999), PD in this project included a set of structured experiences designed to be of direct benefit to a teacher or group of teachers that would ultimately contribute to the quality of children's physical education. The PD program was designed as a set of experiences where teachers had the opportunity over a sustained period of time to review, renew, and extend their commitments as change agents to teaching. This PD initiative was designed to develop skills, knowledge, and/or dispositions and to engender good professional thinking, planning, and practice in interactions with colleagues and children.

Much of the research on teacher PD presented in this monograph has drawn on social theories of learning to explore how teachers learn and identify principles of high-quality PD. Social theories of learning seek to understand how teachers

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perceive their environment and how they assign and extract meanings from their interactions with the environment. The authors in this monograph were interested in developing what Lave and Wenger (1991) call a “community of learners” and to better understand how the PD project affected teachers’ knowledge, beliefs, and teaching practices. It was assumed that how PD experiences were structured in terms of the social relationships among the teachers, graduate students, and teacher educators would define the possibilities for learning. It was also assumed that the language, artifacts, and interactions used in the PD project mediated our collective and individual actions and professional learning and dispositions. In other words, what the members of the community of practice did and how we interacted with each other influenced both what we came to know and what our attitudes were to these initiatives.

The PD activities were designed with the assumption that learning was embedded in (i.e., a product of) the activities of the community of teachers we brought together. There was an assumption that learning would be legitimate if the work of each teacher contributed to his or her growth and/or to the overall success of the project. Teacher learning could be peripheral at times, in that teachers were not expected initially to be the leaders of the PD project although the intent was that they would take over as leaders of the project to ensure its sustainability. The PD activities and projects were designed to actively engage teachers in learning new subject matter (i.e., new curricular approaches), and they were held accountable for accomplishing specific tasks. Debriefing and formal sessions were included for teachers to share their learning with the community of learners and other teachers in the district and the school board, and other staff colleagues.

Lessons Learned in the Design and Delivery of Professional Development

With this theoretical understanding of what we attempted to do with the PD initiative, it is appropriate to reflect on what transpired in these efforts and what lessons can be learned for future PD initiatives in similar contexts. The first lesson might be, “do not try to do too much.” There was some evidence from our work that we needed to limit what teachers needed to accomplish. More is not always better. Even though we had substantial hours (over 100 hours for each cohort) of professional contact time over a 15-month period, we overestimated what could be accomplished. Professional development should not be about only content; in some ways, we were overly focused on content (such as in the conception of knowledge for practice) in terms of providing several new curricular approaches for teachers to consider. On the positive side, some teachers were more attracted to certain curricular models so the diversity allowed us to cater to their interests. However, the breath of curricular initiatives did not allow us to spend the kind of time over several months helping teachers refine their delivery of one curriculum before we moved on to a new curricular approach, as in knowledge in practice.

The second lesson relates to making time for teachers to share ideas often and formally. We found that taking time to allow teachers to share their experiences in implementing their curricular ideas allowed the teachers to reaffirm their work. It also served as a catalyst for other teachers to get focused on why they have opted

to be engaged in this PD. Teachers have to be helped to share their ideas and to talk to each other in ways that allow them to deconstruct their own and each other's ideas about physical education and teaching. Teachers need time to do this and so we viewed it as an important component of the work of the second PEP grant. We were supportive of Wilson and Berne's (1999) view that teacher "knowledge entails skills, ways of talking and interacting, ways of observing, and noticing things in the environment and dispositions toward action and interpretation" (p. 201). We believed that this time allocation, in which to talk and share ideas, is an important characteristic of high-quality PD. To do this successfully, teachers need a supportive climate that allows them to view problems as their friends (Fullan, 1993). Finding ways to analyze this verbal discourse is an important methodological research challenge if we are to capture the "emergent new knowledge" of teachers.

A third lesson learned from our PD work suggests that professional meetings about teaching should be held whenever possible within school time or teachers should be paid for their time. Professional development should be part of, not in addition to, a teacher's workload. This places an onus on teachers to ensure PD time is well spent and will result in better learning experiences for students. Paying teachers to come to PD is expensive but can have huge benefits in how physical education teachers see themselves as part of a larger community of professionals developing their capacities as teachers and leaders. This needs to be done with care for the quality of experiences provided to students in the absence of their teacher for PD. This was a constant source of frustration for us and for the teachers. The crisis of teacher substitutions in the school district was such that it is now almost impossible to get teachers out of school during regular school days, even if you can afford to pay for a substitute. In our case it was easier on all concerned to pay teachers to come to workshops on their own time (thus the heavy use of the summer for this work) but it stills places an enormous burden on teachers to "make" time for PD in an already crowded schedule. This I dare to say is even more of a challenge for many physical education teachers who have coaching commitments.

Public accountability makes a difference. Support via visits to schools, sharing of instructional units across the community of learners, and sharing of successes and challenges were key activities in building ownership of the two PEP initiatives by teachers as well as personal responsibility to their local physical education community.

A fourth and final lesson relates to the tensions that are often created in building personal interactions among a cohort of learners. If teachers are to talk openly and honestly about teaching and their ideas, one can and should expect tensions and disagreements. Such dissonance among professionals should be expected and discussed openly and facilitated with integrity and honesty. Significant learning comes from such conversations that include discussion of teachers' disagreements. As teachers became more and more committed to the PD initiative, they were less and less tolerant of teachers who did not follow through on commitments. These disagreements about workload and leadership opportunities as two examples caused rifts among teachers (some of which still exist today); they also elevated the significance of the work and injected a sense of importance and meaning to their collective efforts. It generated among most teachers an energy to commit to the goals of the PD projects (see discussion on highly and less-engaged teachers in chapter 3), but it also isolated some teachers who were not willing to make a

greater commitment to the project. The leaders of the project were very much aware of these issues and sought to ensure that all who were willing to work on projects (present at conferences, share ideas) had the chance to do so. Again, this reflected a seriousness of purpose about their work that had not been obvious before this project began (we had worked with the school district many times before but not in this systematic or focused way) and was viewed as a very positive development by the coordinator of physical education in the school district.

Conceptions of Teacher Learning

How one thinks about PD for teachers depends in part on how one conceptualizes the nature of teachers' work. Four such conceptions of teachers' work have influenced how PD has been designed and provided to teachers. (a) The perspective of *teaching as labor* views teacher professionalism as a process that allows schemes conceived by external scholars and university-based personnel to be transmitted to teachers and later implemented by them. (b) *Teaching as a craft* views PD as providing teachers with a set of specific competencies that can be measured externally. (c) *Teaching as a profession* is a perspective from which teachers are viewed as having a set of skills and knowledge that they apply differently using teacher judgments to assist the student learning process. (d) Finally, *teaching as an art* involves evaluation of teaching by self and peers and relies on holistic judgments that recognize the unpredictable and personalized nature of teaching.

In contemporary views of PD, approaches to teacher learning of professional knowledge must address opportunities to talk about the subject matter, to talk about students and their learning, as well as conversations about teaching and the conditions of teaching. Our perspective was to view teachers as professionals and to provide them with access to new ways of delivering content to their students while allowing them space to question why and whether these might be useful approaches in their teaching conditions. We did expect them to try the ideas presented and, with experience and reflection on what happened, to discuss these experiences, and to adapt, revise, adapt, or reject the ideas presented.

Cochran-Smith and Lytle (1999) suggested three conceptions of teacher preparation, and we found these ideas quite useful in how we thought about the way we would organize and facilitate the PD initiatives with these urban teachers over this 4-year period. The conception of teacher learning you might embrace will lead to very different ideas about how to improve PD. Each conception of teacher learning holds assumptions about quality teaching that result in different ideas about teacher learning and PD. While categories can be a useful heuristic, the real world rarely sees such distinctions. The central focus of PD would differ substantively depending on the view of teacher learning that is foregrounded by the PD designers/facilitators.

Teacher learning as knowledge for practice suggests that knowing more about subject matter, pedagogy, and educational theory leads more or less directly to improved practice. Physical education teachers implement, translate, use, adapt, and put into practice what they had learned of the knowledge bases to solve problems, represent content, and make decisions about physical education experiences for children in the gymnasium. The recent focus on didactics (Amade-Escot, 2000) and teaching games for understanding (*JTPE*, Vol. 20[4]) reflects this conception

of teacher learning and would foster a very distinctive type of PD. This view of PD would focus on developing teacher *knowledge for practice* and might include workshops and initiatives that focus on curricular innovations such as Sport Education, Tactical Approach to Teaching Games, and Teaching Games for Understanding. This perspective of teacher learning was very much foregrounded in decisions we made about the curricular content for the first and second PEP grants.

Teacher learning as knowledge in practice considers teacher's practical knowledge as central to teaching (Connelly & Clandinin, 1995). The basic assumption is that "teaching is, to a great extent, an uncertain and spontaneous craft situated and constructed in response to particularities of everyday life in schools and classrooms. (Cochran-Smith & Lytle, 1999, p. 262). Thus, what physical education teachers need to teach well is embedded in the exemplary practice of experienced physical educators. This conception emphasizes how teachers invent knowledge in the midst of teaching and make wise choices in creating supportive learning environments for their students. Thus PD initiatives would engage teachers in studying case studies of their own and others' teaching. Teaching is understood primarily as a process of acting and thinking wisely in the immediacy of classroom life, making split-second decisions, choosing among alternative ways to convey the subject matter, interacting appropriately with an array of students, and selecting and focusing on particular dimensions of classroom problems (Cochran-Smith & Lytle, 1999, p. 266). The goal of PD would be to create pedagogies and social and intellectual contexts to probe the teachers' knowledge and the wisdom of their own and others' ideas of teaching and teaching practices. Their new knowledge of the teaching learning process and the students they teach is a product of deliberate inquiry rather than just tacit knowledge borne of experience.

Practical knowledge is that part of professional knowledge that guides day-to-day interactions in classrooms. Teachers bring this knowledge to bear routinely and sometimes unconsciously in their teaching. It is the knowledge of classroom situations and the practical dilemmas they face in carrying out purposeful action in the gymnasium. Such knowledge is hard for teachers to put into words. In carefully facilitated PD sessions, teachers can share information about their teaching beliefs and behavior and are helped to explicate their theories of teaching and learning together with their underlying knowledge, beliefs, and values as a teacher. Strategies used to achieve these goals include opportunities where teachers study their own practice. Armour's (in press) use of autobiography with teachers is one such approach to PD. Another example is providing opportunities for teachers to articulate the what, how, and why of their teaching. This conception of teacher learning was foregrounded in the *PEP-Talk* initiative described in chapter 5 of this monograph. A monthly discussion session held for and by physical educators was supported to allow them to discuss and critique teaching issues of interest to them.

Taking a PD perspective that foregrounds the *knowledge of practice* involves the assumption that "the knowledge teachers need to teach well emanates from systematic inquiries about teaching, learning, learners and learning, subject matter and curriculum, and schools and schooling." Teachers are encouraged to treat their own classrooms as sites of inquiry and examine them within broader political and social terms, such as patterns of student learning and participation and other issues of social justice. Some physical educators who have foregrounded action

research in PD could be seen as advocates for this conception of teacher learning. Teachers are seen as “co-constructors of knowledge and creators of curriculum,” and teachers in turn see themselves as change agents and school leaders. Professional development pedagogies that allow teachers to challenge their assumptions about teaching, children, and schooling have the potential to transform gymnasia into teaching spaces that challenge existing inequities in physical education. In this way, teacher learning is linked to larger efforts of school change, school reorganization, and social justice. Even though we believed in the value of this conception of PD, we did not believe the teachers were at a point in their professional contexts where this approach would have been a useful first step. We were more concerned with building capacity so that in time teachers could have the confidence and interest to enquire into their own learning.

Principles for PD Design and Delivery

Analyses of project data and reflections on our experiences and understandings of the literature on PD suggest the following principles for the design and delivery of PD projects.

1. Teachers should be treated as “active learners” who construct their own meanings and understandings from active participation in the PD program rather than acting as passive recipients of ideas and curricula. Arranging for teachers to play a more central role in designing and implementing initiatives for their own learning will encourage such active participation.
2. Teachers should be empowered and treated as professionals and leaders. This means they have meaningful control in the substance of the PD session, in sharing their ideas and providing time to learn from each other. Teachers should be in a position to challenge the purposes and underlying assumptions of educational change efforts, like both PEP projects we designed and delivered. This means creating a supportive climate in which teachers know that their views are encouraged and valued.
3. Professional development must be situated in classroom practice—not abstract theorizing about ideal environments and goals for physical education teaching and teachers. The British scholar Stephen Ball (1994) noted that the contexts in which teachers work affect what they do. The phases of teachers’ careers and personal lives also affect what they can and are willing to do at certain points in time. It may well be that you have potentially very capable leaders but personal (family obligations) and/or professional (unsupportive principal or teaching colleague) circumstances may make it very difficult for them to take up that leadership role at that time.
4. Focus on content knowledge. Teachers must be able to engage with specific meaningful tasks related to their daily work as teachers, some of which relate to the specific content they offer their students and how and why that content is organized and delivered as it is.
5. Follow-up should be on site and sustained over time. The privacy of most teachers’ teaching circumstances (working alone in a gymnasium) does not

encourage critical dialogue of their own or others' teaching, a vital aspect of quality PD. Developing their interest and capacity in such observations and dialogue needs to be supported and nurtured.

6. Pay attention to teacher and student teaching–learning contexts. Where possible, doing the work of PD is best done in the setting closest to the real work of teachers (i.e., schools) rather than at the university. The kinds of equipment and facilities available to teachers in the local school contexts should be used when presenting new curriculum models or revisiting approaches to assessment and instructional strategies because that makes for a more authentic PD experience.
7. Balance the teachers' needs with a program vision for the PD initiative. We must take teachers as they are and work to address their needs while pushing forward on the goals of a PD program. This will often be a tension that has to be managed. There were a number of occasions when the physical education coordinator and the teacher educators had to work hard with teachers to help them see the relevance of a particular aspect of the PD. For example, assessment was not something of interest to the teachers in the initial stages of the first PEP grant, but having been introduced to authentic assessment strategies, the teachers were encouraged to try assessment in their teaching contexts. At the end of the second PEP grant during PEP-Talk, an entire night was devoted to assessment at the request of the teachers. Presenting ideas to teachers that are feasible in their setting is a key first step, but they must also see how this new “work” will better their program, how they teach, and/or the experiences of their students. Having a rapport and credibility, built up over time, helped in getting teachers to “explore” new ideas and practices. Making time to share their experiences with each other develops a climate of innovation and exploration.

Researching Professional Development

Research on PD efforts is time consuming and difficult to accomplish, and it is even more difficult to measure the success of the program when one attempts to address the product as well as process of the PD initiative. The following are lessons learned from our efforts to systematically evaluate the largest-ever investment in PD of physical educators in this urban district. Gathering systematic data on what teachers and students *do* in class relative to PD goals and not just what they say they do is a necessary step, although this was only a very small part of our work and was described in chapter 4 of this monograph. There had been a low level of morale among teachers because teaching conditions were quite limited and many secondary teachers working in the district over 10 years had received little or no PD. Given these conditions, we decided to focus on building teachers' professional capacities and creating supportive conditions to allow them to explore more contemporary approaches to teaching and assessment. We were under no illusion that our project could control some of the macro conditions of the district (high rates of student mobility; absenteeism; graduation rate; strong focus on basic proficiencies in reading, math, and sciences in school improvement plans) or that we could

expect to see measurable changes in student learning even though we did gather data about teachers' perceptions of changes in students' attendance and participation in physical education and frequently addressed students' reactions to the new experiences that teachers were providing them in classes.

Another lesson we learned about PD research is that data from schools and teachers that is gathered needs to be analyzed regularly, not just at the beginning, middle, and end of the project. Making a schedule to observe how the teachers work at their school site and paying attention to how their interactions with peers change over the course of the project allows insight into what aspects of the PD experiences resonate with them. Given that PD is sustained work with teachers over time, it is important we try to tease out what and how aspects of the PD work facilitate teachers' learning.

We also learned it is best to separate support service and data collection visits with teachers at their schools. Teachers need time to seek advice and avail themselves of the support of the "facilitator" in relation to their needs in experimenting with changes to their teaching and program. The more formal data collection ought to be done in separate visits if feasible. Another lesson learned is that researchers must evaluate the process and product measures. The process measures address the congruency of the PD program delivery with the stated goals of the project (the fidelity of treatment is another way to describe this lesson) as well as product measures in terms of what teachers learned from the PD project. These process issues address such questions as

- Can and do teachers choose problems to solve?
- Under what circumstances do teachers initiate projects, seek leadership or coleader roles?
- How are these capacities encouraged and developed, and what do teachers learn from these activities?

Research designs for PD are at best messy. First, we struggled to design meaningful measures of teacher learning as a result of PD. Analysis of peer discussion and personal narrative are appealing strategies to address such learning. Yet, conversation is a messy and indeterminate medium to measure growth. The result of this work is presented in chapter 5, on our PEP-Talk initiative. Second, it was also far from clear what might be appropriate time frames to track teacher, students, and program change. Professional development is ongoing with the Columbus Public Schools physical education teachers, but the formal end of the Carol M. White PEP funding was a good place to take stock and reflect on the contributions of our efforts to the professional lives of these urban teachers and to physical education programs they are now offering to their students (see chapter 4).

Analyzing how teachers learn from PD is also a difficult challenge. One strategy we tried was the analysis of teacher discourse (see chapter 5) so that we gain greater insight into what knowledge teachers have learned and how they now talk and think about the work they do with children. Complexity and rigor of such analyses are key challenges ahead for PD researchers. Scholars like Rosebery and Warren (1998)—science educators who have been studying how science teachers learn science and come to understand themselves as science teachers—have documented and analyzed what teachers are learning and provided analyses of individual teacher

and group discourse that has raised interesting issues about teachers' acquisition of professional knowledge. They and we must grapple with teacher knowledge that transcends words on paper. What is the substance and meaning of physical education knowledge and how might they best acquire it? And how does this teacher knowledge translate into teaching behavior and student learning?

Concluding Comments

Such challenging work cannot be done without long-term, sustained commitments to teacher PD. Working in difficult low-performing schools where physical education is not considered of great importance makes this work more challenging but also rewarding. Such work needs to involve partnerships with schools and groups of teachers rather than with individual teachers, however valuable such one-on-one work may be with a teacher. We must keep our eye on the prize, a phrase often used by the great civil rights leader, Martin Luther King. The prize we would like to suggest is quality teaching and quality experiences for students in physical education programs that encourage students' long-term engagement in active and healthy lifestyles. Providing supportive, meaningful (to them), and sustained structures for teachers is the challenge of contemporary PD design and delivery. Researching the efficacy of these efforts is critical if we are to improve these structures and supports.

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